Miller, Beth M.; Truong, Kimberly A.

The role of afterschool and summer in achievement. The untapped power of afterschool and summer to advance student achievement

Stecher, Ludwig [Hrsg.]; Allemann-Ghionda, Cristina [Hrsg.]; Helsper, Werner [Hrsg.]; Klieme, Eckhard [Hrsg.]: Ganztägige Bildung und Betreuung. Weinheim u.a. : Beltz 2009, S. 124-142. - (Zeitschrift für Pädagogik, Beiheft; 54)

Zeitschrift für Pädagogik · 54. Beiheft

Ganztägige Bildung und Betreuung

Herausgegeben von
Ludwig Stecher, Cristina Allemann-Ghionda, Werner Helsper
und Eckhard Klieme

Beltz Verlag Weinheim und Basel

Herstellung: Klaus Kaltenberg
Gesamtherstellung: Druckhaus »Thomas Müntzer«, Bad Langensalza
Printed in Germany
ISSN 0514-2717
Bestell-Nr. 41155

Inhaltsverzeichnis

Betreuung und Zeitpolitik

Beth M. Miller/Kimberly A. Truong

The Role of Afterschool and Summer in Achievement

The Untapped Power of Afterschool and Summer to Advance Student Achievement

> „If I had to choose between keeping all of my school learning or keeping all of my outside of school learning, I would not hesitate a moment: goodbye, school learning" (student quoted in Wolk 2001, p. 56).

What are the most influential experiences of your youth, the things that helped you become who you are today? If you are like most people, you are unlikely to respond with descriptions of time you spent in school. More likely, you will think about your life outside of school – the woods you explored with neighbourhood kids, the youth worker at the Boys and Girls Club who encouraged you to dream, that time you had a big role in the school play, the teacher who tutored you after school and came to your basketball game. People, places and activities: these are the building blocks of development.

Some children can benefit from spending additional time developing skills in numeracy and literacy either during or after school. However, research indicates that increasing young people's involvement in enrichment activities can be an even more effective long-term strategy for building academic success (Campbell/Storo/Acerbo 1995). Afterschool and summer programs can play a key role in engaging youth in the learning process by providing opportunities to explore interests, gain competency in real world skills, solve problems, assume leadership roles, develop a group identity with similarly engaged peers, connect to adult role models and mentors, and become involved in improving their communities. This article argues that afterschool and summer programs can make a difference in building the „prerequisites" to learning, supporting not only school achievement, but long-term competence and success as well.

This article examines how participation in programs during out-of-school time can improve educational outcomes for youth. In the following pages, we will explore the links between out-of-school time and success by reviewing the literature on engagement in learning. We will conclude with a discussion about access to afterschool and summer opportunities and its effect on student achievement. Although more research needs to be conducted and much remains to be learned, the evidence is clear: afterschool and summer programs can be powerful vehicles for academic achievement.

1. Toward a Theory of Change

A theory of change is an idea about how things work – in this case, how participating in afterschool programs is expected to lead to specific outcomes. The theories proposed address the question: How does participation in afterschool programs promote learning? Theories of change can be helpful in depicting the underlying assumptions about how things connect, allowing us to test ideas so that we can see whether the theory works.

Theories of change are increasingly used in evaluation research and can be effective tools for program planning as well (for example, see Fulbright-Anderson/Kubisch/Connell 1998). The theories described below are rooted in ecological systems theory (Bronfenbrenner/Morris 1998), which posits that individuals develop in a context of families, social institutions, society, and culture, all of which affect the developmental process. The specific theories of change have been developed by the lead author, based in part on the theory of change developed by Connell and Gambone (1999) and the work of the National Research Council (2002).

Figure 1 illustrates a simple theory of change for out-of-school time. The assumption is that how students spend their time after school can lead to increased engagement in learning, resulting in better school performance. Studies of the effects of participation in interscholastic sports support Theory of Change A (Jordan 1999). In several studies, sports involvement resulted in increased academic achievement. However, the direct effect of sports was weaker than the effect it had on engagement in learning, which led to better school performance. Engagement in learning in these studies was defined as improved self-concept and increased academic self-confidence.

Not all out-of-school time activities will have the same outcomes, of course. As illustrated in Figure 2, Theory of Change B, the location of children after school can deter-

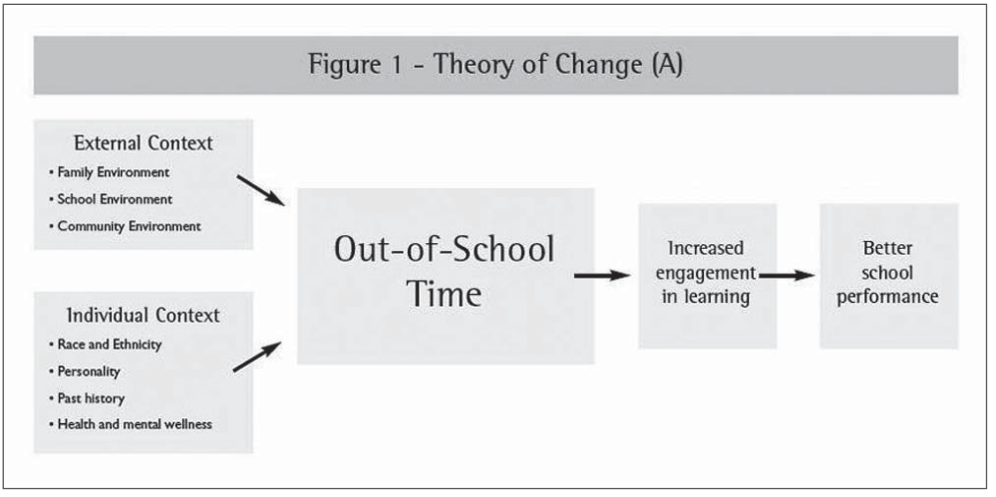

Fig. 1: Theory of Change (A)

mine the types of activities they engage in. For example, latchkey children are more likely to watch television in the afternoon than children engaged in an afterschool program (Posner/Vandell 1994). Different activities have different effects on engagement in learning, which in turn affects school performance (Hofferth/Jankuniene 2000).

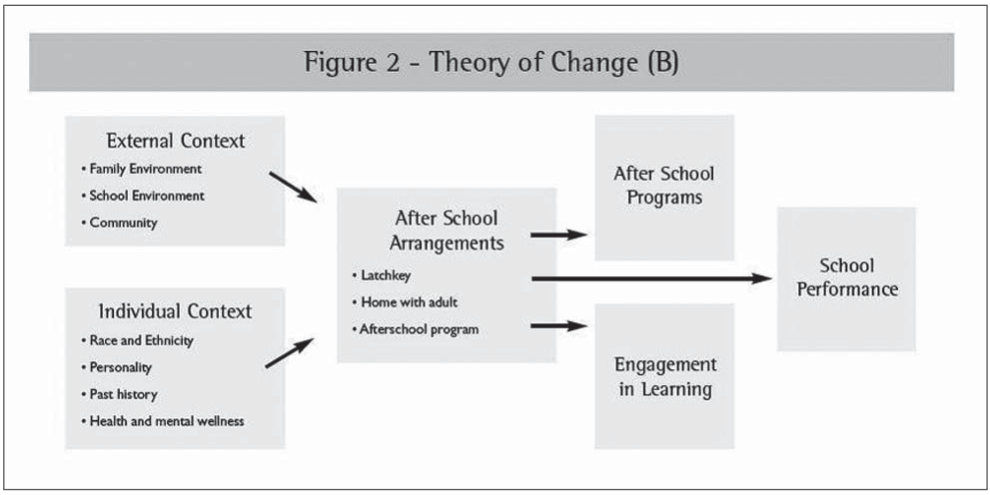

Fig. 2 Theory of Change (B)

Posner and Vandell (1994; 1999) followed a group of low-income third-graders from third to fifth grade, analyzing the relationship between the children's use of time, after school settings, and outcomes. In third grade, the most common activities the children participated in after school were (in order of average amount of time): watching television, transit, homework or other academic activities, unorganized outside activities, eating, and unstructured indoor activities. However, children who attended afterschool programs spent more time on homework and enrichment activities, more time actively involved with adults, and less time in unsupervised outside play than children in mother care, informal adult supervision (babysitting), or self-care. How children spent their time made a difference in their academic and social functioning: time spent in unorganized outdoor activities was associated with lower grades, and poorer adjustment and work habits. Time in enrichment activities was associated with better grades, work habits, adjustment, and relationships with peers, while time with adults was associated with improved conduct ratings by teachers and better grades in school.

These differences continued to affect children's school performance and behavior in fifth grade, even taking into account their school adjustment and activities in third grade. For African American children, participating in non-sport extracurricular activities and having strong connections with peers and adults (time spent socializing) were related to better behavior and adjustment in school. For white children, time spent outside in un-

structured activities (i.e., hanging out without adult supervision) was related to poorer grades, work habits and emotional adjustment. There is also evidence that activities affect outcomes for older children. Larson (1994) studied the relationship between participation in activities by seventh graders and delinquency. He concluded that some, but not all, activities counteract delinquency, and participation in youth organizations, the arts, and hobbies have the most positive effects.

Figure 3 details the theory of change, specifying the features of effective programs and direct results of intentional programming. Effective programs can provide youth with the factors associated with engagement in learning. As Theory of Change C indicates, increases in engagement in school are likely to develop into actual changes in behavior and performance over time.

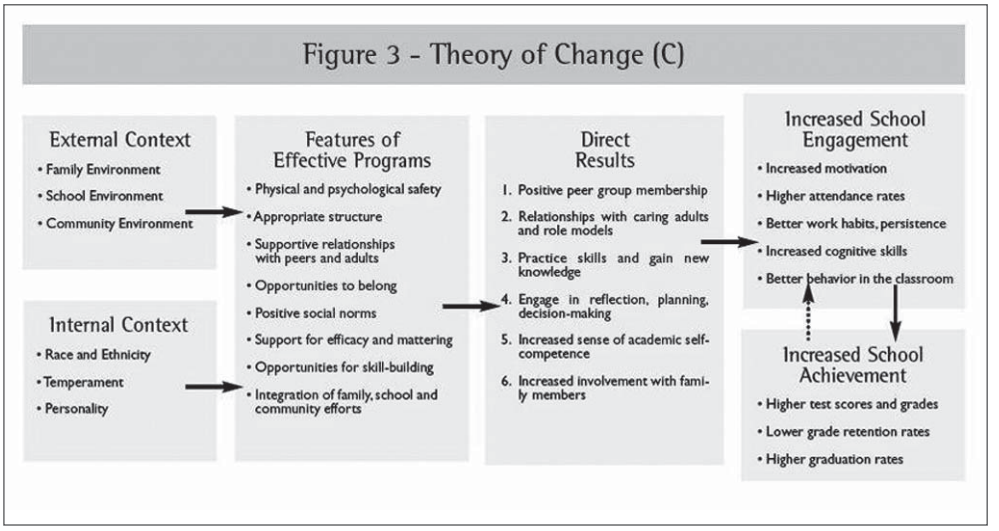

Fig. 3 Theory of Change (C)

Afterschool programs can promote school success in a number of ways. One primary pathway is the social integration of youth into a group that includes peers, adults and the community at large (Larson 1994). In addition, through program participation, young people can:

a) Build meaningful relationships with adults outside their family and gain positive role models
   Structured activities can provide positive adult role models (Quane/Rankin 2001). From resiliency research, we know that a stable relationship with a caring adult provides the most effective „protection“ from the effects of stress for young people (Werner 1993).

b) Engage in activities that enable them to learn new things and practice knowledge gained in school
Engagement in constructive activities can have a direct effect on academic achievement by increasing skills in areas important to school performance. These skills may be content-based, like geometry and reading, or broader „soft" skills like communication and teamwork. Experiences in a subject area, like science, can lead to increased interest in science courses and careers (Campbell/Storo/Acerbo 1995).

c) Engage in reflection, planning, decision-making, and problem-solving
During adolescence, there is movement from a child's focus on the present to an adult's ability to create a structure to reach one's goals. Studies of the characteristics of effective youth programs have noted the impact of reflective practices on young people's development (Larson 1994).

d) Become attached to a group of peers who have positive aspirations
Through participation, students develop membership in a peer group that provides a common set of experiences, goals and personal interactions that influence identity. Creation of a peer group of similarly interested peers can have a powerful influence on the achievement and school orientation of young people (Larson 1994). Troubled adolescents often affiliate with other deviant youth; if participation includes this social network and changes it, or links the young person to a new pro-social peer group, one observes a reduction in antisocial behaviors and increased engagement in school (Mahoney 2000).

e) Find a „border zone" between the cultures of home and school that provides them with pathways to mainstream society at the same time respecting their identity
Inner-city youth are familiar with the skills needed to survive on the street. Effective afterschool programs help youth learn skills they will need in mainstream society – from working with technology to communication skills – in a context that makes the importance and usefulness of such knowledge apparent (Catalano et al. 1998). Programs create space for young people to reflect on society, acknowledge social problems like racism in a pro-active context, and build the skills needed to counteract them (Heath 1994). Finally, programs find ways to include the culture, values, norms, and family members of participants, creating an integrated space where many parts of their world can come together (Comer 1988).

f) Transfer positive experiences in a school-based program to more positive feelings about school itself
For many low-performing students, school has been an overwhelmingly negative experience. At a time when disengagement from school increases abruptly, middle school afterschool programs can provide an incentive for students to attend school and begin to make links between school-based expectations and their future work and life goals. Positive learning experiences in afterschool activities and programs, par-

ticularly if they are school-based, can bring about a more positive identification with school (Gilman 2001).

g) Increase the sense of themselves as learners
When students build proficiency in one area, like athletics, their self-confidence increases, which can transfer to other aspects of their lives including school (Jordan 1999). Participation in out-of-school time programs and activities can also increase a student's academic self-concept, which can positively affect school performance (Larson 1994).

h) Increase the involvement of family members in their lives
Family members are often involved in students' extracurricular activities (Larson 1994). Parents come to performances, games and other events. They also provide support in the form of transportation, selling tickets, timing swim meet heats, and the myriad other „invisible" tasks involved in many youth activities. When parents are involved in an activity like creating costumes for a theater performance, it can promote bonds between generations. These public events and the programs that sponsor them provide a way for early adolescents to receive recognition from family members, as well as provide a topic for conversation. Parents may also increase their communication with other parents and school personnel due to attendance at events, meetings and performances related to the program.

2. Engagement in Learning

Academic achievement is the result of many complex, interrelated factors. Preschool experiences and parenting are important, as is the quality of schooling a child receives, including class size, curricula, teacher training, and emotional climate (Alexander/Entwisle/Horsey 1997). Relationships – with teachers, parents and other caring adults – matter a great deal. Having a relationship with a caring adult can make a significant difference in the life trajectory of a disadvantaged young person (Garmezy 1991; Scales/Leffert 1999).

Students who are engaged in learning take interest in their schoolwork, make an effort to earn good grades, and attempt to master the subject matter on their own before requesting assistance (Connell et al. 1995). Students who are alienated from school, on the other hand, score lower on psychological assessments of adjustment, are more likely to act out aggressively, are far more likely than their peers to use alcohol and drugs, become sexually active at an early age, and commit acts of juvenile delinquency and crime (Resnick et al. 1997).

Unfortunately, there is overwhelming evidence that many students experience a marked decrease in school engagement during the middle school years. Data on nearly 100,000 students from the Search Institute suggests that „the middle school years are typically a time of lowered interest, motivation, and effort in school" (Scales/Leffert

1999, p. 145). Average grades falter; self-esteem, interest in school and confidence in academic abilities declines; and truancy increases (Larson 1994).

Data from the National Longitudinal Study of Adolescent Health (Add Health), which includes information on approximately 12,000 students in grades 7-12, indicates that the sharp increase in disengagement from learning usually associated with older adolescents actually occurs during the junior high years between 7th and 9th grade (Olson 2002). Steinberg, Brown & Dornbusch (1996) found that students reported paying less attention in class, feeling more distant from people at school, and believing their teachers cared less about them. There was not a similar drop-off over the next three years.

In another ten-year study of more than 20,000 teenagers and their families from nine communities, Steinberg, Brown & Dornbusch (1996, p. 67) found that nearly 40 percent of the students were „just going through the motions". They were exerting little effort in the classroom, not doing homework, cheating on tests, occasionally cutting classes, and choosing easier courses.

Unfortunately, the negative effects of the transition to junior high are most pernicious for those already at greatest academic risk: low-performing students, poor students, students from African American or Latino ethnic or racial backgrounds, and students with limited English proficiency (Scales/Leffert 1999).

Afterschool programs can't change students' school experiences, but they can provide alternative environments that may be more in tune with young people's interests, motivations and needs. Programs may provide opportunities for the kind of personal attention from adults that young people crave, a positive peer group, and activities that hold their interest and build their self-esteem. Adolescents are most likely to be in a state of intense, sustained engagement during certain activities – art, sports, games, hobbies, and other structured voluntary activities (Larson 2000). It is this ‚flow' experience that builds intrinsic motivation and initiative (Csikszentmihalyi/Nakamura 1989).

In his essay ‚Seventeen reasons why football is better than high school', Childress (1998) points out the differences between activities that occur after school and those during a typical school day. In activities (including but not limited to football) after school, students are usually viewed as important contributors rather than passive recipients. They choose their roles, help others who are less skilled, and are critical to the success of the project. They are honored for their accomplishments as well as expected to have strong feelings and relationships. In many high quality afterschool activities, young people experience a group setting where every individual's effort makes a difference, where they spend significant time (rather than a class period) focused on a specific skill, and where they receive a lot of individual attention from adults.

Afterschool programs can also create a bridge or „border zone" between the culture of peers, families and communities on the one hand, and the school environment on the other (Heath 1994). Will these practices increase students' engagement in learning? To answer this question, we must explore education literature to identify factors that motivate students to become committed to learning.

2.1 What Promotes Engagement in Learning?

When the school setting is not in tune with the developmental needs of students, they are likely to lose interest. Students of any level of intelligence will do poorly in school if they are not fully engaged in the learning experience. Students who are engaged are focused, enthusiastic and persistent when faced with challenges. They choose tasks that stretch their abilities and challenge their current knowledge, and participate actively in class, using their own skills to think about the topic or problem at hand. Engaged students may be motivated for a number of different reasons: personal interest in a topic; desire to maintain a positive relationship with a respected teacher; desire for the approval of peers, parents or other adults; a belief that success will lead to rewards in the long run; or a desire to maintain or increase their own sense of their ability to do things well.

A body of literature known as „resiliency research" can help us understand the individual, family, school, and community factors that help to promote engagement in learning (Comer 1984; Werner 1993). This field has studied children who face multiple risk factors, like poverty, chronic health problems, trauma, domestic violence, low birth weight, and racism.

Rather than focusing on the negative effects of these stressors, resiliency researchers carefully tease out the supports, relationships and experiences that enable some children to succeed despite adversity. The results of this research (combined with other research in education and psychology) suggest four major factors that explain students' engagement in learning: a sense of oneself as a competent learner; parents who are involved in the child's education; emotional attachments to caring adults; and exposure to positive peer influences. A discussion of each of these factors follows.

2.2 A Sense of Oneself as a Competent Learner

Motivated students have what is known as high „academic efficacy". Students who have academic efficacy believe their success in school is due to factors under their control – they have confidence in their academic abilities and feel that if they work hard, they will do well. They do not believe that teacher favoritism, luck or the difficulty of the curriculum plays a large part in the outcome of their schoolwork. Students with low academic efficacy, or a lack of belief in their ability to control their school achievement, feel just the opposite. If they succeed, they attribute it to good luck or an easy assignment. If they fail, they believe it is due to an unfair teacher, bad luck or a very hard test. Not surprisingly, efficacious students are much more likely to experience academic success (Connell et al. 1995).

Students must also come to school motivated to learn. Steinberg, Brown & Dornbusch (1996) found that many junior high school students today recognize the importance of graduating, but not of performing well beyond the level required to avoid failure. Students must believe both that there will be rewards and that they have the capacity to do the work required to meet higher expectations. Gutman & Midgley (2000) found

that academic self-efficacy was associated with higher grade point averages. In addition, students with high levels of parental involvement and feelings of school belonging or teacher support had higher grade point averages in sixth grade than peers who had only one factor or no factors.

2.3 Involved Parents

We have substantial evidence that parental involvement is key to positive academic outcomes for youth (for example, see Comer 1984). The benefits of parental involvement accrue to all ethnic and socioeconomic groups, and include higher grades and test scores, better school attendance, more time spent on homework, reduced drop-out rates, increased rates of college attendance, and improved behavior and social skills.

Many parents demonstrate their concern by participating in school activities and conferences. However, even parents who are not available during school hours or choose not to engage in school-based activities can provide a critical link. Clark (1983) found that parents of high-achieving students were not only more active at the school itself, but also within the home, holding frequent conversations with their children about school and monitoring their activities both during and after school. Peng & Wright (1994) found that when parents have high expectations based on accurate assessments, many of the effects of income, class, or race on academic achievement are diminished.

Afterschool programs can serve as a link between school and family. This is especially true in the elementary years, when parents typically pick up their children at the program. Parents often have much more contact with afterschool staff than with their children's teachers, and form relationships with them that may carry over several school years. Afterschool programs can encourage positive communication between schools and parents by helping parents understand the school's expectations, curriculum and culture (Fiester/White/Reisner/Castle 2001). Programs can also help school staff to develop better understanding of parents' cultures and concerns as well.

2.4 Emotional Attachments to Caring Adults

Parents are not the only important adults in the lives of young people. Resiliency research attests to the over-arching significance of adult mentors and role models, especially for young people who face educational disadvantage. In many studies, the single most important factor in long-term success is the presence of an adult, whether a relative, teacher or community member, who provides a consistent nurturing presence in a young person's life (Garmezy 1985; 1991).

The most effective teachers are those who build strong relationships with students, provide opportunities for students to contribute, and foster a welcoming environment. Research indicates that the effects of these relational practices far outweigh the value of a teacher's credentials or years of experience in effectively promoting learning (Entwisle 1990). Smaller schools and smaller classrooms are also more effective for exactly this

reason: they create an environment that allows teachers to build individual relationships with their students (D'Amico 2001).

Caring adults do not necessarily have to be teachers. Parents, church members, afterschool staff, and others who form a strong relationship with a young person have a powerful opportunity to guide his or her attitudes toward school and eventual school success. A combination of caring adults and small groups allows students to develop a sense of connection to school (or an afterschool program). Resiliency research indicates that students who feel a sense of belonging and identification with their school are more likely to have positive attitudes toward school, higher academic aspirations, motivation, and achievement (Resnick et al. 1997).

2.5 Positive Peer Influences

Getting along with peers and adults is linked to success in school (Wentzel 1991). Social competence influences academic outcomes directly, e.g., when learning takes place in small groups or cooperative situations, and indirectly when it supports a positive climate in the classroom. Young people's susceptibility to peer pressure peaks during the middle school years (National Research Council 2002). When students' peer groups do not support, and even belittle, academic achievement, motivation is likely to fall (D'Amico 2001). An early adolescent's peer group becomes incorporated into his or her identity, and the normative standards for achievement and behavior in school are likely to have a powerful effect on motivation and school performance, sometimes outweighing the influence of parents.

A growing body of research focuses on the central role of relationships and problem-solving skills in building engagement in learning. „Social and emotional competency refers to the capacity to recognize and manage emotions, solve problems effectively, and establish and maintain positive relationships with others" (Ragozzino et al. 2003, p. 1). As suggested by the theory of change, studies have found that increases in social and emotional competence translate to improvements in academic behavior and attitudes (Ragozzino et al. 2003).

If afterschool programs are to support the school success of middle school students, they must attack the critical „prerequisite" to academic achievement: a desire to learn. Afterschool programs are uniquely poised to help young people see themselves as learners in an informal, hands-on learning environment. They can bring parents, schools and the community together. They can create the foundation for a positive peer culture that values learning skills and contributes to society.

3. How Can Summer Programs Make a Difference?

Young people need to feel competent as learners, to believe they can make a difference in their own success, to persist in the face of challenges, to feel that they can solve problems, and to have an interest in the content of the material they are learning (Miller

2003). Summer programs have the potential to develop sustained engagement in interest-based activities, which, as research suggests (Larson 2000), may result in increased intrinsic motivation and initiative. When summer programs engage children in learning, these experiences have the potential to increase the motivation of young people over the long run, helping them develop goals and attitudes that last long past the warm days of summer.

Summer programs can support academic success in a number of different ways: by creating more time for learning, building relationships between children and adults, providing engaging learning activities that give children a chance to practice and make school-taught skills and knowledge meaningful, and building motivation through successful learning experiences in the arts, sports, or other areas. Such experiences create increased engagement in learning, which encompasses attitudes and behaviors such as motivation, persistence, initiative, and focus. Research indicates that engagement in learning is the key to school achievement as well as longer term-success, more powerful than IQ or family background (Miller 2003).

3.1 The Availability of Time

One clear advantage of summer learning is the sheer availability of time – time for activities, for relationship building, and for a kind of learning that is exploratory and experiential in nature. Unfortunately, adding time for learning without the concomitant reform of other educational practices has not proved to be the panacea educators had hoped for, as evidenced by today's efforts to extend the school year. Karweit (1984, p. 33) notes: „Learning takes time, but providing time does not in itself ensure that learning will take place". And a recent report published by the Education Sector concludes: „Research reveals a complicated relationship between time and learning and suggests that improving the quality of instructional time is at least as important as increasing the quantity of time in school" (Silva 2007, p. 1).

Much of the research on extending the time children spend in school, whether through longer school days or years, has found either weak or no effects (Karweit 1984; RAND Corporation 2006). In a study for the Department of Education, Haslem, Pringle & Adelman (1996) concluded „simply adding more classroom time to the school year or day is a weak reform strategy" (p. 8). The study found that the educational success of the extended-time schools they studied depended on how much emphasis the school placed on characteristics not directly related to hours, such as strengthening students' sense of responsibility and respect.

Some studies that consider a longer school year do find positive effects on children's school performance. For example, a study of kindergartners that compared those attending for an extended year (210 days) with those attending a regular year (180 days) found that children attending the longer year showed higher performance levels in math, reading, and general knowledge, as well as higher levels of cognitive competence (Frazier/Morrison 1998). Why the different results (Karweit 1984, p. 33)? These seemingly con-

tradictory findings are probably attributable to the fact that time alone does not make a difference in learning – it is what happens during that time that matters.

Researchers on time and learning divide the time children spend in school into three categories: allocated time, engaged time, and learning time (Silva 2007; Karweit 1984). ‚Allocated time' consists of all the hours that children spend in school, and this measure has little or no relationship to achievement. It turns out that during allocated time, children spend half or more of their hours engaged in activities such as transitioning, preparing for a lesson about to begin, waiting while a teacher deals with disciplinary issues, eating lunch, and nonlearning activities. Some studies have found that as little as 28% of allocated time at school is spent in instruction (Karweit 1984). Yet even ‚engaged time' − time when children are involved in the learning process − does not result in increased achievement unless it matches the needs of the learner well. Lessons that are either too hard, meaning a child will not understand it, or too easy, such that the child has little to gain from them, will not produce worthwhile learning. ‚Learning time' is defined as „that precise period when an instructional activity is perfectly aligned with a student's readiness and learning occurs" (Aronson/Zimmerman/Carlos 1999, p. 3).

Not surprisingly, the few studies that have examined the relationship between engaged time and achievement find a stronger correlation than research examining only allocated time, and those that capture learning time find the strongest relationship of all (Silva 2007; Karweit 1984). However, defining learning time is complex, both the content and process of the learning environment as well as the internal needs of the individual student must be known. In fact, some experts suggest that downtime such as recess allows children to process and create meaning from the new content they learn in school (Waite-Stupinsky/Findlay 2001), and brain research confirms that time away from direct instruction is necessary to the processing that permits learning to occur (Jensen 2005).

Most important, the research in this area makes clear that time alone will not make the difference in achievement. Further studies have shown that successful programs, whether they take place in summer schools, summer camps, or after school (Vandell/Pierce/Dadisman 2005; Miller 2003), must do something more: they must get children excited about learning and increase their motivation to pursue knowledge in the months and years ahead. In addition, these studies have found that children are more excited about learning when they are connected to adult teachers and caregivers who introduce them to challenging and enriching experiences. Summer programs have the potential to extend learning time in an atmosphere of excitement, fun, and support, thereby building positive attitudes toward learning year-round.

3.2 Strong Relationships

Research on education (Comer 1988) and youth development (Tharp 1989; Pollock 2007), as well as resiliency research (Connell/Spencer/Aber 1994; Garmezy 1985), all point to the key role played by young people's relationships with caring adults – teachers, parents, or other adult role models. In addition to connections with individual adults,

having a sense of belonging to a larger community − including a connectedness to social institutions such as schools − is a key factor in children's school achievement and avoidance of risky behaviors (Blum/Beuhring/Rinehart 2000).

Recent research on the brain extends earlier findings in education and developmental studies by exposing the biological foundations of the critical role of social and emotional factors in school learning (Commission on Children at Risk 2003). Brain research suggests that the relational nature of development is guided by the very architecture of our brains (Jensen 2005; Commission on Children at Risk 2003). Our genes establish the basic blueprint for our developing brains, but our relationships with the important people in our lives guide the way that physical architecture is built over time and its stability.

Some of the most crucial relationships for children are those with the adults in their lives, relationships that serve as the single most important foundation for student success, especially for children at risk of school failure (Marzano 2003). For example, one study of children at high risk of retention in kindergarten, first, and second grades showed that those children who had a warm relationship with their teachers were not retained. Likewise, studies of afterschool programs (Rosenthal/Vandell 1996) also suggest that positive relationships between adults and children in the program are strongly linked to positive outcomes for youth. Rhodes (2004) posits three major ways in which afterschool staff helps children develop: through direct instruction and conversations with youth that build cognitive skills; through support for social and emotional well-being; and by giving youth role models that help them to see possible avenues for their future.

Good peer relationships are also important, and their effects increase as children enter adolescence (Vandell/Pierce/Dadisman 2005). During this period of identity formation (Eccles/Midgley 1990), strong prosocial attachments made during summer programs may reduce children's tendency to engage in risky behavior in order to gain peer approval (McWhorter 2002), behavior that may also carry over to the school year (Philliber Research Associates 2005).

Summer programs represent an opportunity for children and youth to develop strong relationships with adults and peers and a sense of having a valued place in the larger community. Unlike school, where much of the attention must be on content, and afterschool programs, where the available time limits the ability to develop deeper connections, summer is rich in both time and content flexibility (Piha 2006). In this informal learning setting, adults can serve as mentors to children who have few opportunities to venture outside their immediate community, enabling them to see themselves in new ways.

3.3 Experiential Education

For middle-class children who continue to learn over the summer months, summer education is experiential education. Alexander, Entwisle & Olson (2001) note:

> „We found that better off children in the BSS [Baltimore Schools Study] more often went to city and state parks, fairs, or carnivals and took day or overnight trips. They

> also took swimming, dance, and music lessons; visited local parks, museums, science centers, and zoos and more often went to the library in summer. And children who lived in better neighborhoods also played more organized sports in summer. Sports like soccer, field hockey, and softball require children to learn complicated rule systems and take multiple roles" (p. 84).

We know from research on the brain that the ability to locate new knowledge in a conceptual framework is key to learning (Jensen 2005) and that concrete experience is „one of the best ways to make strong, long-lasting neural connections" (Wolfe 2001, p. 188). Experiences that allow children to expand their horizons, gain perspective on their lives, and participate in authentic learning are likely to improve their performance in school (Berger 2003). Noam, Biancarosa & Dechausay (2003) argue that an experiential approach allows children to develop their skills in organizing and problem solving as well as reinforcing basic skills through real-world use of math and literacy. Clark (1983; 1990) suggests the importance of experiences that give young people a chance to use the skills they learn in school − to gain insight into the importance of academic skills for everyday life as well as to improve them through practice.

Research on experiential education, which can include adventure education, community service learning, project-based learning, cooperative learning, outdoor adventure programs, and other experiences, provides insight into effective strategies for summer programs. In fact, many summer programs embrace, albeit implicitly, the approach to learning defined by the Association for Experiential Education (2007) as „[a] philosophy and process in which educators purposefully engage with learners in direct, relevant experience and focused reflection in order to increase knowledge, develop skills, and clarify values and ways of thinking" (p. 1).

Evaluations of experiential education and cooperative learning activities have found that they have positive effects on students in a variety of areas, including academic performance. The most common outcomes are improved self-concept, stronger internal locus of control, stronger leadership skills, better grades, and higher school attendance (Zeng 2005). In addition, cooperative learning is a powerful tool for building inter-group relations (Sapp 2007). A meta-analysis of outdoor education and adventure education programs by Hattie and his colleagues (Hattie et al. 1997), which included 151 samples from 96 studies, found that outdoor education programs had significant effects on a wide range of areas, and according to follow-up studies, these positive changes lasted over time. Evaluations of community service learning programs (Miller 2003) indicate that these experiences can enhance children's school performance while building a variety of positive characteristics in youth.

Project-based learning is a form of experiential education with great potential for out-of-school time programs in general and summer programs in particular (Berger 2003; Seidel 2002). Youth engage in collaborative long-term projects with clear learning goals, often multidisciplinary in nature, by participating in a series of activities that are linked over time and culminate in a product, service, or performance that has genuine meaning to the participants and often to the larger community as well.

Reflection is a key component of project-based learning, which is typically conducted in small, cooperative learning groups. Project Zero, at Harvard University School of Education, which has been studying project-based learning for over four decades, finds that this educational approach helps develop „essential skills required in school and work settings: the ability to do sustained work over time; skill in collaborating with others; problem solving and critical thinking in the midst of complex activities; and attention to process as well as product" (Seidel 2002, p. 3).

Citizen Schools has developed a model of afterschool programs for middle school students that utilizes experiential education through ‚apprenticeships'(e.g. working at a federal courthouse and participating in a mock trial, testifiying at a public hearing, designing a website for a nonprofit organization, or creating an exhibit at a local museum) where volunteers guide small groups of youth over the course of a semester in a learning experience culminating in a demonstration, presentation, or performance for the wider community. A three-year evaluation of Citizen Schools (Fabiano et al. 2006) found especially strong effects on participating 8th graders, who were more likely than comparable non-participating peers to enroll in a top-tier high school and to be promoted to 10th grade on time.

Research, most of it focused on afterschool programs, indicates that both process and content matter for out-of-school-time learning. Brain research can help us understand the science behind this fact: in order to achieve academic success (Jensen 2005; Wolfe 2001) children need positive relationships with adults and peers in an environment that feels physically and emotionally safe, as well as activities that promote active learning.

4. Conclusion

The biggest learning gap we face is not an education or opportunity gap for our children. It is a knowledge gap for the adults concerned about these issues – the gap between what scientists and educators already know and what society does (or does not do) with that knowledge. If, as a society, children do not have access to afterschool or summer learning programs, the test-score gap between the advantaged children and their less fortunate peers will continue to grow.

Schooling matters, but the research shows that in large part schools are already doing their job − that is, helping all children learn. However, schools cannot help children learn when their doors are closed, and families of limited economic means cannot compensate for the missing resources on their own.

Afterschool and summer deserve attention, because low-income children and children of color do not have the access to these opportunities as other children do. Learning is not just about retaining information: learning to think, solve problems, analyze information and situations, innovate, communicate, and work well with diverse individuals are all key skills needed in a global economy (National Center on Education and the Economy 2006). The informal learning environments of many afterschool and summer programs can be prime contexts for the development of these twenty-first-century skills (Irby/Pittman/Tolman 2003).

The racial, ethnic, and income gaps that we see in school-based test scores are not a result of school experiences but rather reflect deep divisions in our broader society: gaps in access to economic and social resources, support, and role models, as well as differences in the level of bias and stress that students face in their educational environments. Closing the achievement gaps requires not only changing schools but also creating new, meaningful, and ongoing experiences for children outside of school, including during the many hours of summer. If we are to achieve education equity, we must provide all students with afterschool and summer learning opportunities.

References

Alexander, K.L./Entwisle, D.R./Horsey, C.S. (1997): From first grade forward: Early foundations of high school dropout. In: Sociology of Education 70, S. 87–107.

Alexander, K.L./Entwisle, D.R./Olson, L.S. (2001): Schools, achievement, and inequality: A seasonal perspective. In: Educational Evaluation and Policy Analysis 23, H. 2, S. 171–191.

Aronson, J./Zimmerman, J./Carlos, L. (1999): Improving student achievement by extending school: is it just a matter of time? San Francisco: WestEd.

Association for Experiential Education (2007): What is experiential education? (http://www.aee.org/about/whatIsEE; Abrufdatum: 18.11.08)

Berger, R. (2003): An ethic of excellence: Building a culture of craftsmanship with students. Portsmouth: Heinemann.

Blum, R.W./Beuhring, T./Rinehart, P.M. (2000): Protecting teens: Beyond race, income, and family structure. Minneapolis: Center for Adolescent Health, University of Minnesota.

Bronfenbrenner, U./Morris, P.A. (1998): The ecology of developmental processes. In: Damon, W./Lerner, R.M. (Hrsg.): Handbook of Child Psychology: Volume I, Theoretical Models of Human Development. New York: John Wiley and Sons, S. 993–1028.

Campbell, P.B./Storo, J./Acerbo, K. (1995): Math, science, sports, and empowerment: Girls Incorporated replication and expansion of the Eureka! Model, Executive Summary. Groton: Campbell-Kibler Associates.

Catalano, R.F./Berglund, M.L./Ryan, J./Lonczak, H.S./Hawkins, J.D. (1998): Positive youth development in the United States: Research findings on evaluations of positive youth development programs. Seattle: Social Development Research Group, University of Washington.

Childress, H. (1998): Seventeen reasons why football is better than high school. In: Phi Delta Kappa Online, S. 1–5.

Clark, R.M. (1983): Family life and school achievement: Why poor Black children succeed or fail. Chicago: University of Chicago Press.

Clark, R.M. (1990): Why disadvantaged students succeed: What happens outside school is critical. In: Public Welfare, S. 17–23.

Comer, J.P. (1984): Home-school relationships as they affect the academic success of children. In: Education and Urban Society 16, S. 323–337.

Comer, J.P. (1988): Educating poor minority children. In: Scientific American 259, H. 5, S. 42–48.

Commission on Children at Risk (2003): Hardwire to connect: The new scientific case for authoritative communities. New York: Institute for American Values.

Connell, J.P./Gambone, M.A. (1999): Youth development in community settings: A community action framework. Philadelphia: unveröffentlichtes Manuskript

Connell, J.P./Halpern-Felsher, B./Clifford, E./Crichlow, W.E./Usinger, P.A. (1995): Hanging in there: Behavioral, psychological and contextual factors affecting whether African American adolescents stay in high school. In: Journal of Adolescent Research 10, H. 1, S. 41–63.

Connell, J.P./Spencer, M.B./Aber, J.L. (1994): Educational risk and resilience in African American youth: Context, self, action, and outcomes in school. In: Child Development 65, S. 493–506.

Csikszentmihalyi, M./Nakamura, J. (1989): The dynamics of intrinsic motivation: A study of adolescents. In: Ames, C./Ames, R. (Hrsg.): Research on Motivation in Education 3. San Diego: Academic Press, S. 45–71.

D'Amico, J.J. (2001): A closer look at the minority achievement gap. Alexandria: ERS Spectrum.

Eccles, J.S./Midgley, C. (1990): Changes in academic motivation and self-perception during early adolescence. In: Advances in Adolescent Development 2, S. 134–155.

Entwisle, D.R. (1990): Schools and the adolescent. In: Feldman, S./Elliott, G.R. (Hrsg.): At the Threshold: The developing adolescent. Cambridge: Harvard University Press, S. 197–224.

Fabiano, L./Pearson, L.M./Reisner, E.R./Williams, I.J. (2006): Preparing students in the middle of grades to succeed in high school: Findings from Phase IV of the Citizen Schools evaluation. Boston: Citizen Schools.

Fiester, L./White, R.N./Reisner, E.R./Castle, A.M. (2001): Evaluation Results from the TASC After-school Program's Second Year: Summary of Findings. Washington: Policy Studies Associates.

Frazier, J./Morrison, F. (1998): The influence of extended-year-schooling on growth of achievement and perceived competence in early elementary school. In: Child Development 69, H. 2, S. 495–517.

Fulbright-Anderson, K./Kubisch, A.C./Connell, J.P. (Hrsg.) (1998): New approaches to evaluating community initiatives: Volume 2, theory, measurement, and analysis. Washington: The Aspen Institute.

Garmezy, N. (1985): Stress resilient children: The search for protective factors. In: Stevenson, J. (Hrsg.): Recent research in developmental psychology. Oxford: Pergamon Press.

Garmezy, N. (1991): Resiliency and vulnerability to adverse developmental outcomes associated with poverty. In: American Behavioral Scientist 34, S. 416–430.

Gilman, R. (2001): The relationship between life satisfaction, social interest and frequency of extracurricular activities among adolescent students. In: Journal of Youth and Adolescence 30, S. 749–768.

Gutman, L.M./Midgley, C. (2000): The role of protective factors in supporting the academic achievement of poor African American students during the middle school transition. In: Journal of Youth and Adolescence 29, S. 223–248.

Haslem, M.B./Pringle, B./Adelman, N. (1996): The uses of time for teaching and learning. Washington: U.S. Department of Education, Office of Educational Research and Improvement.

Hattie, J./Marsh, H.W./Neill, J.T./Richards, G.E. (1997): Adventure education and Outward Bound: Out-of-class experiences that make a lasting difference. In: Review of Educational Research 67, H. 1, S. 43–87.

Heath, S.B. (1994): The project of learning from the inner-city youth perspective. In: New Directions for Child Development 63, S. 25–34.

Hofferth, S.L./Jankuniene, Z. (2000): Children's after-school activities. Chicago: Vortrag bei der Biennial Meeting of the Society for Research on Adolescence.

Irby, M./Pittman, K./Tolman, J. (2003): Blurring the lines: Expanding learning opportunities for children and youth. In: New Directions for Youth Development 93, S. 13–28.

Jensen, E. (2005): Teaching with the brain in mind. Alexandra: Association for Supervision and Curriculum Development.

Jordan, W.J. (1999): Black high school students' participation in school-sponsored sports activities: Effects of school engagement and achievement. In: Journal of Negro Education 68, S. 54–71.

Karweit, N. (1984): Time-on-task reconsidered: Synthesis of research on time and learning. In: Educational Leadership 41, H. 8, S. 32–35.

Larson, R.W. (1994): Youth organizations, hobbies, and sports as developmental contexts. In: Silbereisen, R.K./Todt. E. (Hrsg.): Adolescence in context: The interplay of family, peers, and work in adjustment. New York: Springer-Verlag, S. 46–65.

Larson, R.W. (2000): Toward a psychology of positive youth development. In: American Psychologist 55, H. 1, S. 170–183.

Mahoney, J.L. (2000): School extracurricular activity participation as a moderator in the development of antisocial patterns. In: Child Development 71, S. 502–516.

Marzano, R. (2003): What works in schools: Translating research into action. Alexandra: Association for Supervision and Curriculum Development.

McWhorter, J. (2002): Why the Black-White test gap exists. Washington: Brookings Institution Press.

Miller, B.M. (2003): Critical hours: Afterschool programs and educational success. Quincy: Nellie Mae Education Foundation.

National Center on Education and the Economy (2006): Tough choices or tough times: The report of the New Commission on the Skills of the American Workforce. Washington: National Center on Education and the Economy.

National Research Council (2002): Community programs to promote youth development. Washington: National Academy Press.

Noam, G.G./Biancarosa, G./Dechausay, N. (2003): Afterschool education: Approaches to an emerging field. Cambridge: Harvard Education Press.

Olson, L.S. (2002): Detachment starts in middle school, study finds. In: Education Week, 29.05.2002, S. 9. (Online document: http://www.edweek.org/ew/articles/2002/05/29/38adolescent.h21html; 25.04.09).

Peng, S./Wright, D. (1994): Explanation of academic achievement in Asian American students. In: Journal of Educational Research 87, H. 6, S. 346–352.

Philliber Research Associates (2005): Directions: Youth development outcomes of the camp experience. Martinsville: American Camp Association.

Piha, S. (2006): Holding California afterschool programs accountable. San Francisco: California Committee on Afterschool Accountability.

Pollock, J.E. (2007): Improving student learning: One teacher at a time. Alexandria: Association for Supervision and Curriculum Development.

Posner, J.K./Vandell, D.L. (1994): Low-income children's after-school care: Are there beneficial effects of after-school programs? In: Child Development 65, S. 440–456.

Posner, J.K./Vandell, D.L. (1999): After-school activities and the development of low-income urban children: A longitudinal study. In: Developmental Psychology 35, H. 3, S. 868–879.

Quane, J.M./Rankin, B.H. (2001): It pays to play: The link between neighborhood-based organizations and the social development of urban youth. Anaheim: Vortrag beim American Sociological Association Annual Meeting.

Ragozzino, K./Resnik, H./Utne-O'Brien, M./Weissberg, R.P. (2003): Promoting academic achievement through social and emotional learning. Chicago: Collaborative for Academic, Social and Emotional Learning.

RAND Corporation (2006): Ready for school: Can full-day kindergarten level the playing field? Santa Monica: Rand Corporation.

Resnick, M.D./Bearman, P.S./ Blum, R.W./Bauman, K.W./Harris, K.M./Jones, J./Tabor, J./Beuhring, T./Sieving, R.E./Shew, M./Ireland, M./Bearinger, L.H./Udry, J.R. (1997): Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. In: The Journal of the American Medical Association 278, H. 10, S. 823–832.

Rhodes, J. (2004): The critical ingredient: Caring youth-staff relationships in after-school settings. In: New Directions for Child Development 103, S. 101–145.

Rosenthal, R./Vandell, D.L. (1996): Quality of care at school-age child-care programs: Regulatable features, observed experiences, child perspectives, and parent perspectives. In: Child Development 67, S. 2434–2445.
Sapp, J. (2007): Cooperative learning: A foundation for race dialogue. (http://www.tolerance.org/teach/magazine/features.jsp?p = 0&is = 39&ar = 684; Abrufdatum: 18.11.08).
Scales, P.C./Leffert, N. (1999): Developmental assets: A synthesis of the scientific research on adolescent development. Minneapolis: Search Institute.
Seidel, S. (2002): Project-based learning in the after-school setting. Cambridge: Project Zero, Harvard Graduate School of Education.
Silva, E. (2007): On the clock: Rethinking the way schools use time. Washington: Education Sector.
Steinberg, L./Brown, B.B./Dornbusch, S.M. (1996): Beyond the classroom: Why school reform has failed and what parents need to do. New York: Simon and Schuster.
Tharp, R.G. (1989): Psychocultural variables and constants: Effects on teaching and learning in schools. In: American Psychologist 44, H. 2, S. 349–359.
Vandell, D.L./Pierce, K.M./Dadisman, K. (2005): Out-of-school settings as a developmental context for children and youth. In: Kail, R.V. (Hrsg.): Advances in child development and behavior 33, S. 43–77.
Waite-Stupinsky, S./Findlay, M. (2001): The fourth R: Recess and its link to learning. In: Educational Forum 66, H. 1, S. 16–25.
Wentzel, K.R. (1991): Relations between social competence and academic achievement in early adolescence. In: Child Development 62, H. 5, S. 1066–1078.
Werner, E.E. (1993): Risk, resilience, and recover: Perspectives from the Kauai Longitudinal Study. In: Development and Psychopathology 5, S. 503–515.
Wolfe, P. (2001): Brain matters: Translating research into classroom practice. Alexandria: Association for Supervision and Curriculum Development.
Wolk, S. (2001): The benefits of exploratory time. In: Educational Leadership 59, S. 56–59.
Zeng, L (2005): Principles and key elements in cooperative learning. In: Sino-US English Teaching 2, H. 2, S. 69–73.

Adresse der Autoren:

Beth M. Miller, Ph.D., Director of Research and Evaluation, Nellie Mae Education Foundation, 1250 Hancock Street, Suite 205N, Quincy, MA 02169

Kimberly A. Truong, Ed.M., University of Pennsylvania, Higher Education Division – 4th Floor, 3700 Walnut St., Philadelphia, PA 19104